

## **ABSTRACT**

**DISSERTATION/THESIS/RESEARCH PAPER/CREATIVE PROJECT:** Understanding Attitudes Towards and Perceptions of Controlled Environment Agriculture Among Rural Youth Adults in South Africa

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Food insecurity and chronic hunger are prevalent in South Africa, especially in marginalized rural communities. Environmental factors such as water scarcity and limited land availability make food production difficult for rural dwellers. At the same time, the youth unemployment rate in South Africa is more than 50%, negatively contributing to South Africa's economic development. Finding ways to engage youth in the economy is critical to advancing South Africa's development. While food production offers an avenue into economic activity, many young people have a negative perception of agriculture, viewing it as difficult, antiquated, and unprofitable. Controlled-environment agriculture (CEA), including hydroponics, aeroponics, and aquaponics, offers a potential solution to these issues. CEA uses water and space more efficiently than traditional growing methods, and may be more appealing to young people when compared to traditional agriculture. While CEA has the potential to address issues constraining food production and youth unemployment in South Africa, little research has been done to measure young people's attitudes and perceptions regarding CEA.

This research project will focus on measuring the attitudes and perceptions young South Africans have towards traditional agriculture and CEA by conducting participant-led focus groups in three rural villages in the Limpopo Province of South Africa. Results suggest that young adults believe CEA has the potential to address some of the most pressing challenges constraining traditional agriculture in their communities. Specifically, they believe it has the potential to significantly reduce the amount of hard physical labor required to produce food, and to be financially rewarding. While participants responded positively to the concept of CEA, they also acknowledged that it comes with its own set of challenges, which would need to be addressed before CEA operations could be successful. Specifically, participants were concerned with CEA's need for specialized skills and startup capital. If these challenges could be addressed, they believe investment in CEA-centered development initiatives could positively impact their communities.